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AN INVESTIGATION OF READABILITY LEVELS OF JUNIOR COLLEGE FACULTY HANDBOOKS.

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DESCRIPTORS- *JUNIOR COLLEGES, *COLLEGE FACULTY, *MANUALS, GUIDES, *READING DIFFICULTY, READING LEVEL, *READABILITY, FLESCH READING EASE FORMULA, ARIZONA, CALIFORNIA,

THE FLESCH READING EASE FORMULA WAS APPLIED TO SELECTED SECTIONS OF THE 1965-66 FACULTY HANDBOOKS FROM 61 CALIFORNIA AND ARIZONA JUNIOR COLLEGES IN AN EFFORT TO DETERMINE WHETHER THEY WERE WRITTEN IN A STYLE TO PROVIDE MAXIMUM OPPORTUNITY FOR COMPREHENSION. THE HANDBOOK SECTIONS STUDIED WERE (1) INTRODUCTORY MATERIAL, (2) GRADING POLICIES AND PRACTICES, (3) ADMISSION AND ATTENDANCE POLICIES AND PRACTICES, (4) ACCIDENTS AND EMERGENCIES, (5) FIELD TRIPS, AND (6) BULLETINS AND ANNOUNCEMENTS. THE MATERIAL STUDIED, WHICH TENDED TO BE RATED AS "DIFFICULT" OR "VERY DIFFICULT," IS CONSISTENT WITH THE GENERAL EDUCATIONAL LEVEL OF JUNIOR COLLEGE INSTRUCTORS. WHILE VARIATIONS IN LEVEL CAUSE CONCERN ABOUT OVERSIMPLIFICATION, WHICH MAY DESTROY THE FLEXIBILITY AND PRECISION NECESSARY FOR FULL UNDERSTANDING OF A PARTICULAR POLICY OR PROCEDURE, MATERIAL MUST ALSO BE EASY AND INTERESTING ENOUGH TO INDUCE THE INSTRUCTOR TO BOTHER TO READ THE HANDBOOK. THIS ARTICLE IS A REPRINT FROM "CALIFORNIA JOURNAL OF EDUCATIONAL RESEARCH," VOLUME 19, NUMBER 1, JANUARY 1968. (WO)

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An Investigation of Readability Levels Of Junior College Faculty Handbooks

FREDERICK C. KINTZER

CONTINUED unprecedented growth of higher education during the sixties has placed severe strains on interinstitutional written communication systems. Diversified interests of ever-increasing numbers of new faculty members heighten the task of maintaining effective media for the exchange of important information.

While some research has been conducted on improving the quality of communication systems, practically all of these efforts have been confined to cooperations and governmental agencies, and within these areas primarily to problems of preparation and distribution. It is most unfortunate that so little attention has been given to publications of particular types of institutions within the higher education family. Among the few studies available on junior college manuals, for example, have appeared as monographs in the Occasional Report series developed by the UCLA Junior College Leadership Program – faculty handbooks, board policy manuals, and presidents' annual reports. A content analysis of 1965-66 editions of faculty handbooks has recently been completed, and is related to the present research in that both deal with the same set of publications.

The faculty handbooks study which compares 1960-61 and 1965-66 documents identified what appeared to be disturbing trends. In the first place, later editions seemed to be more standardized and stereotyped. Policies stated in legal terminology had all too frequently replaced simpler more readable explanations.[1] In the second place, specific examples were cited to indicate that the more recent editions of faculty handbooks were

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[1] Frederick C. Kintzer, "Faculty Handbooks Restudied," *Journal of Secondary Education*, November, 1966, p. 310.

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less individualistic in both the type of information provided and the style in which topics were presented. It was suggested, in short, that the effectiveness of these publications were endangered by greater use of standardized, stereotyped statements of policy which, if continued, would quite probably impede usefulness. An informal check at one of the cooperating institutions increased the suspicion that staff members were not acquainted with their handbook – some professing total ignorance of its contents.

Handbooks and manuals are obviously of little value if they are not accepted and read by the group for which they are designed. While a manual for teachers cannot realistically approach the brevity, simplicity and visual appeal of a better industrial employee handbook, it can and indeed must be comprehensible and interesting.

As one writer explains: "Distribution of the finished handbook or house organ is not the final step of the process. The process is not complete until the employees read what has been written and understand what they read!"[2] Attention and interest values and the readability of material, the writer continues, are vital factors in this process. The latter – readability of material – is, he concludes, of utmost importance: "a reader will not maintain interest in material that is difficult for him to understand."[3]

The present research is concerned only with readability levels of certain sections of recent California and Arizona public junior college faculty handbooks. While the two previous studies sought to identify content and other characteristics, this one seeks to answer the question: Are the handbooks written in a style to provide maximum opportunity for comprehension by junior college faculty members? It was also hoped that the technique employed would provide a pattern for similar but possibly more sophisticated investigations utilizing comprehension or interest formulas.

Methodology

1. Total write-ups of six different topics – *introductory sections, grading policies and practices, admission-attendance policies and practices, accidents-emergencies, field trips, and bulletins and announcements* – found in all available handbooks were subjected to the Flesch reading ease formula.

2. Readability scores were obtained for each of the six dimensions in all available handbooks containing material on each of the six items. (See Table I.)

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[2] James N. Farr, "Readability and Interest Values in an Employee Handbook," *Journal of Applied Psychology*, February, 1950, p. 16.

[3] *Ibid.*, p. 16.

TABLE I

Readability Levels of Junior College Faculty Handbooks (with special reference to selected topics)

	Total Colleges Studied	Total Words	Reading Ease Scores	Interpretations
Introduction — Preface	51	7394	24.389	Very Difficult Material (scientific)
Grades — Grading Policies	21	7077	45.321	Difficult Material (academic)
Admission — Attendance	19	4809	35.981	Difficult Material (academic)
Accidents — Emergencies	21	3853	41.754	Difficult Material (academic)
Field-trip Policies	21	5040	10.621	Very Difficult Material (scientific)
Bulletins — Announcements	21	3253	32.253	Difficult Material (academic)
Grand Total Colleges	61			
Grand Total Words		31426		

3. Readability scores were next obtained for material on one or more of the six topics in handbooks – twelve in number – whose total contribution was at least 900 words. (See Table II.) Specific comparisons are ventured only between mean reading ease scores of entire topics.

Choice of Formula

The Flesch formula is apparently the most popular of the so-called objective methods of estimating the comprehension difficulty of written material. Since the development of the statistical formula in 1943 and particularly since the publication of the 1948 revision, the Flesch reading ease formula has been widely used in many fields. Applications to documents in higher education, however, have been most recent. Completely lacking are junior college studies utilizing either the Flesch reading ease or human interest formulas.

While readability measurements lack the accuracy to be utilized, in Bormuth's words, "for adjusting the difficulty of instructional materials (or) to decide if instructional materials are suitable for students of a given level of reading ability," researchers recommend for use those formulas – including the Flesch – which combine syllable and word

TABLE II Readability Levels of Junior College Faculty Handbooks (with special reference to selected topics)

Selected Institutions	Introduction Preface	Grades-Grading Policies	Admission-Attendance	Accidents-Emergencies	Field Trips	Bulletins-Announcements	Composite	Interpretations
1. East Los Angeles College	33.183	26.689		24.982	24.145		33.684	Difficult Material (academic)
2. Imperial Valley College	25.973	66.479	12.652	23.005	8.758	20.570	62.235	Standard Material (digest type magazine)
3. Los Angeles Pierce College	55.892	23.082		24.202	17.625	48.257	15.948	Very Difficult Material (scientific)
4. Merced College	22.592	43.635	2.799	12.736			34.414	Difficult Material (academic)
5. Orange Coast College	42.980	59.033			48.839	34.399	28.689	Very Difficult Material (scientific)
6. Sacramento City College		62.830	48.442	73.315	80.184	50.951	61.644	Standard Material (digest type magazine)
7. City College of San Francisco	47.323		55.840				50.431	Fairly Difficult Material (quality magazine)
8. San Joaquin Delta College	43.030		78.456	77.853	75.425	83.273	74.194	Fairly Easy Material (slick fiction)
9. Santa Ana College	31.120	76.826	62.135		62.974		66.107	Standard Material (digest type magazine)
10. Santa Rosa Junior College	44.764	72.660		69.105	76.407	53.035	68.443	Standard Material (digest type magazine)
11. Sierra College		81.046	70.124	75.726		75.664	74.354	Fairly Easy Material (slick fiction)
12. Yuba College	78.512	76.023	60.839	52.771	58.534		65.058	Standard Material (digest type magazine)

counts.[4] The latter variable, Bormuth indicates, "has been the best single measure of the grammatical complexity of sentences . . ."[5]

Hayes, Jenkins and Walker suggest that the Flesch formulas and the directions for their use are "sufficiently objective to be used even by inexperienced analysts to obtain estimates of the reading ease and human interest of written material."[6]

Others offer general endorsement of Flesch's revised formula as, at present, the best of those available. Farr, Jenkins, Paterson and England write:

> As matters stand, there is reason to believe that many practical people think that it takes an expert to make readability studies. The purpose of the new formula with the table for facilitating the computation of reading ease scores is to persuade practical men to use it in their daily work.[7]

For the reader's convenience prior to a discussion of junior college faculty handbook excerpts, the revised Flesch reading ease formula is presented along with what the author calls his "pattern of reading ease scores."

1. R. E. (reading ease) = 206.835 − .846 (word length) − 1.015 (sentence length).
2. Pattern of reading ease scores. See below.

Readibility Score	Style	Typical Magazine	School Grade Level of Potential Audience	Syllables per 100 Words	Average Sentence Length in Words
0 to 30	Very Difficult	Scientific	College	192 or more	29 or more
30 to 50	Difficult	Academic	H.S. or Some College	167	25
50 to 60	Fairly Difficult	Quality	Some H.S.	155	21
60 to 70	Standard	Digests	7th or 8th Grade	147	17
70 to 80	Fairly Easy	Slick-fiction	6th Grade	139	14
80 to 90	Easy	Pulp-fiction	5th Grade	131	11
90 to 100	Very Easy	Comics	4th Grade	123 or less	8 or less

[4] John R. Bormuth, "Readability: A New Approach," *Reading Research Quarterly*, Spring, 1966, p. 82.

[5] *Ibid.*, p. 92.

[6] Patricia M. Hayes, James J. Jenkins, and Bradley J. Walker, "Reliability of the Flesch Readability Formulas," *The Journal of Applied Psychology*, February, 1950.

[7] James N. Farr, James J. Jenkins, Donald G. Paterson, and George W. England, "Reply to Klare and Flesch re 'Simplification of Flesch Reading Ease Formula,'" *The Journal of Applied Psychology*, January, 1952, p. 57.

Discussion

As indicated earlier, two basic comparisons were attempted in this investigation: first, among six topics discussed in all available handbooks of California and Arizona public junior college faculty handbooks, and secondly, among twelve of these documents whose total contribution in six or fewer dimensions reach a minimum of 900 words.

Sixty-one handbooks are included in the first comparison. The number containing write-ups of the six topics varies considerably. Fifty-one have introductory material (approximately 7400 words), but only 19 contain information on admission and attendance (approximately 4800 words). As Table I further indicates, a total of 31,426 words are involved in the comparison of the six variables.

Reading ease scores range from 10 to 45 which, according to the Flesch patterns, place the material in the "very difficult" and "difficult" categories. Two of the six – introductory sections and field trips – are classified as roughly equivalent to "scientific" writing; while the other four – grades-grading policies and practices, admission-attendance policies and practices, and bulletins-announcements – are considered similar to "academic" writing. Flesch suggests that school grade level of understanding of so-called "scientific" material is a college degree, and of "academic" material is high school or some other college experience.[8] Obviously, according to this roughly approximate standard, handbook sections used in this study are not too difficult for junior college faculty members, the vast majority of whom have masters degrees.

Sections dealing with field trips appear to be the most difficult of all. Frequent use of Education Code provisions which are often couched in legal terminology and punctuated with legal reference numbers may be partially responsible for increasing the syllable count and lengthening sentences.

Much greater variation in reading ease scores is immediately seen both among the six variables within individual institutions and in institutional composites. Shown in Table II, institutional total scores range from 28 – within the "very difficult" category – to 74 (termed "fairly easy" material). Composites of two of the twelve colleges place material in the "very difficult" classification, two others in the "difficult" range, one "fairly difficult," and five "standard." Three of twelve institutional scores relate, according to the Flesch interpretation, to "fairly easy" material (approximating "slick-fiction"). Certainly, junior college instructors

[8] Rudolph Flesch, "A New Readability Yardstick," *Journal of Applied Psychology*, June, 1948, p. 230.

would feel at ease with more complex material than represented by the "standard" and "fairly easy" range of grammatical difficulty. It is indeed possible that some might resent such writing as beneath their academic preparation.

Widest variation in writing styles appears in sections on admission-attendance and field trips. Material estimated to be "practically unreadable" as well as "very easy" is found on the same topic in handbooks of nearby junior colleges. Since the individuals for whom the information is prepared and the preparers of handbook material have equal educational preparation, it would not seem likely that such extreme differences would exist. Differences in district policies and practices would obviously contribute to some style flexibility, but not, one would think, to the extent shown in Table II.

There appears to be differences between the readability of faculty handbooks of the smaller and larger junior colleges identified for particular investigation. The mean readability score of sections of smaller institutions (five of the twelve having less than 2500 regular students) is 60.9 – classified as "standard." For six larger colleges (those with at least 4000 regular students) the mean readability score is 47.1 which is considered in the "difficult" range. Although one smaller institution contributes difficult material, the four others are classified as "standard" or "fairly easy." Readability scores of material from the seven larger schools are more widely varied. As Table II indicates, total contributions of only three of the seven institutions are judged as "difficult" or "very difficult." Two of the remaining four are termed "standard."

Generally speaking, it can be said that handbooks of smaller institutions are somewhat easier to read than those of large junior colleges. Relative simplicity of smaller schools, particularly in the area of student services, is probably a more important factor to this situation than mere size. Professional sophistication of the preparers may be a contributing factor.

Summary

The junior college faculty handbook has become an influential publication. As a guide for the teaching staff, it is properly less formal and hopefully more readable than the institutions board policy manual. Although information regarding content, appearance, and details of organization and distribution is available in the literature, little has been written on the vital problem of readability – relationship of grammatical difficulty with reading levels of the clientele. As a result of previous work in the field, fear was expressed that handbook material was becoming too stereo-

typed and standardized – that effectiveness of the publications may for this and other reasons be at stake.

Researchers are fairly well agreed that the revised Flesch reading ease formula provides a reasonably objective method for equating written material. They are less agreed that recommendations inherent in the formula (and others similar to the Flesch) are valid for producing more readable copy for a specific group.

The present study – using the Flesch reading ease formula on certain topics found in junior college faculty handbooks – deals with the question, "Are the handbooks written in a style to provide maximum opportunity for comprehension by junior college faculty members for whom the documents are designed?" In addition, the investigator hoped to develop a technique – a pattern – for future research.

The answer to the basic question was found to be yes. Readability (mean) scores of representative material was, according to formula interpretations, found to be consistent with the general educational level of junior college instructors. Minor differences appeared among the twelve colleges compared – possibly as a result of institutional complexity and diversity – and among the six topics compared in many handbooks.

A final word of warning needs to be sounded in the use of readability and interest formulas. While it is certainly advisable to be concerned about difficulty levels of material to be placed in handbooks, passages can be oversimplified. Oversimplification of material – following formula rules too literally – may rob the passage of flexibility and precision inherent in the English language, which may well be vital to a full understanding of the particular policy or procedure. As one author admonishes: "The short word is not always the right word . . . In a phrase which a scholar of language might have difficulty in defining but which any sixth-grade student could understand, the writing is real corn."[9] Multisyllable words and extended phrases – rigorous "academic" writing – which play havoc with readability scores may be necessary to protect the integrity of junior college faculty handbook material. On the other hand, material must be sufficiently easy and interesting to induce a junior college instructor to bother to study his faculty handbooks.

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[9] Theodore Allison, "Employee Publications: There's Room for Improvement," *Personnel*, July, 1954, pp. 58-59.

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